

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Massachusetts Institute of Technology

Serial No.	Filing Date	Patent No.	Issue Date
09/542,942	March 31, 2000	7,084,867	August 1, 2006
10/267,907	October 9, 2002	7,084,869	August 1, 2006
10/390,472	March 17, 2003	7,098,028	August 29, 2006
10/280,268	October 24, 2002	7,112,361	September 26, 2006
10/661,831 ✓	September 12, 2003	7,158,545	January 2, 2007
10/367,120	February 14, 2003	7,169,111	January 30, 2007

## NOTIFICATION OF LOSS OF ENTITLEMENT TO SMALL ENTITY STATUS

Director of the United States Patent and Trademark Office  
Attention: Maintenance Fee  
2051 Jamieson Avenue, Suite 300  
Alexandria, VA 22314  
Via Facsimile: 571.273.6500

Dear Sir/Madam:

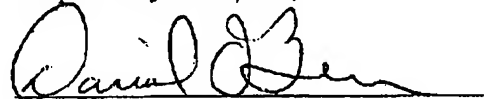
I hereby state that I am an official of Applicant to act on behalf of the concern identified below:

**Massachusetts Institute of Technology (MIT)**

I hereby notify the United States Patent and Trademark Office that the above referenced patents are no longer entitled to status as small entities, and that the claims for small entity status filed previously by the Applicant is hereby withdrawn.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

Respectfully Submitted,



Daniel O'Brien

Intellectual Property Manager  
Massachusetts Institute of Technology  
Five Cambridge Center, Kendall Square  
Room NE25-230  
Cambridge, Massachusetts 02142-1493  
Submitted: January 10, 2011

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DEFICIENCY PAYMENT UNDER 37 C.F.R. § 1.28 (c)

Applicants had previously established in good faith, the status of the subject US Patents as small entity and paid the maintenance fees as such. It was subsequently discovered that such status was established in error. Applicants submit herewith a deficiency payment of \$2,940, which represents the deficiency owed for the maintenance fees.

The deficient payment is itemized as follows:

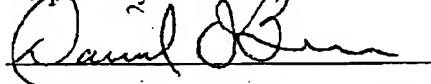
Patent No.	Type of Fee	Fee Due Date	S/E Fee Paid	Current L/E Fee	Deficiency
7,084,867 /	4 <sup>th</sup> Year	February 1, 2010	\$490	\$980	\$490
7,084,869 /	4 <sup>th</sup> Year	February 1, 2010	\$490	\$980	\$490
7,098,028 /	4 <sup>th</sup> Year	February 28, 2010	\$490	\$980	\$490
7,112,361 /	4 <sup>th</sup> Year	March 26, 2010	\$490	\$980	\$490
7,158,545 /	4 <sup>th</sup> Year	July 2, 2010	\$490	\$980	\$490
7,169,111	4 <sup>th</sup> Year	July 30, 2010	\$490	\$980	\$490

The Office is hereby authorized to charge \$2,940 to Deposit Account No. 192553 in payment of the above-referenced deficiencies.

If there are any additional charges, or any credits, please apply them to Deposit Account No. 192553.

Date: January 10, 2011

Respectfully submitted,



Daniel O'Brien, Intellectual Property Manager  
Massachusetts Institute of Technology  
Technology Licensing Office  
Five Cambridge Center, Kendall Square  
Cambridge, Massachusetts 02142-1493  
617.258.7148 (Telephone)  
617.258.6790 (Fax)

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01 FC:1599 490.00 DA

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01 FC:1599 490.00 DA

01/12/2011 MBANGURA 00000097 192553 7090020  
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01/12/2011 MBANGURA 00000095 192553 7084867  
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01/12/2011 MBANGURA 00000096 192553 7084869  
01 FC:1599 490.00 DA

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PTO/SB/98 (07-09)

Approved for use through 07/31/2012. OMB 0851-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Hu et al.Application No./Patent No.: 10/661,831 - 7,158,545Filed/Issue Date: 09-12-2003 - 01-02-2007Titled: **TERAHERTZ LASERS AND AMPLIFIERS BASED ON RESONANT OPTICAL PHONON SCATTERING TO ACHIEVE POPULATION INVERSION**

Massachusetts Institute of Technology, a University

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest in;
2. ☐ an assignee of less than the entire right, title, and interest in  
(The extent (by percentage) of its ownership interest is \_\_\_\_\_ %); or
3. ☐ the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

the patent application/patent identified above, by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 014960, Frame 0001, or for which a copy therefore is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

- ☒ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature

Daniel O'Brien

Printed or Typed Name

January 10, 2011

Date

Intellectual Property Manager

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.